

ABSTRACT OF THE DISCLOSURE

An ion attachment mass spectrometry method causes positively charged metal ions generated in a metal ion generation region to attach to molecules of a measured gas in an attachment region to generate attached ions, and then performs mass spectrometry on the attached ions in a mass spectrometry region. In the method, further, a pressure of the attachment region is set so as to be included in a pressure range enabling free flight of the metal ions and the attached ions in the attachment region, an electrostatic field is formed for decelerating the metal ions in the attachment region, and only the measured gas is introduced to the attachment region. Thereby, quantitative analysis enabling accurate measurement of the concentration of the measured gas is realized.